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BOSTON:

A

COMMERCIAL METROPOLIS IN 1850.

HER GROWTH, POPULATION, WEALTH AND
PROSPECTS.

AS ORIGINALLY PUBLISHED IN HUNT'S MERCHANTS' MAGA-
ZINE FOR NOVEMBER, 1850.

BY

E. H. DERBY.

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THE
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B O S T O N :

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COMMERCIAL METROPOLIS IN 1850.

Boston, the commercial center of New England, lies at the head of Massachusetts Bay, near the confluence of Charles and Mystic Rivers. These streams are navigable for a few miles only, but uniting with Neponset and Weymouth Rivers form one of the noblest harbors in the world. It is land locked, accessible to ships of the line, susceptible of easy defense, rarely if ever obstructed by ice. Extending fourteen miles from Point Alderton to Medford, and in width at least eight miles from Chelsea to Hingham; it covers seventy-five square miles, and would hold all the shipping of the Union.

The entrance for large vessels is very narrow, barely sufficient for two ships to sail abreast. It is defended by three fortresses, two of which, situate on Georges and Castle Islands are on the largest scale, and constructed with all the improvements of modern science. The third, or Citadel, on Governors' Island, has been recently begun. These will effectually command the entrance, and when finished may be considered impregnable.

This harbor is well adapted to commerce. The Peninsula and Island of Boston are literally fringed with wharfs and docks, while around the harbor, and its affluents, are clustered many cities and villages into which Boston overflows, all of which have piers or landing places, viz: Hingham, Hull, Weymouth, Quincy, Milton, Dorchester, Roxbury, Brookline, Brighton, Newton, Watertown, Cambridge, Charlestown, Chelsea, Malden, Medford and Somerville.

The space occupied by Boston proper is small for a commercial city.

The early settlers chose for their residence, in 1630, a Peninsula. It was connected with the main by a narrow isthmus, (occasionally overflowed by the sea,) and divided at high tide into two islands. The entire tract contained six hundred acres. It was called Shawmut, or Trimountain, and derived its name from its springs and three lofty hills. The spot was un-

doubtedly selected for pure water, facilities for commerce, and security from wolves and Indians.

Boston soon became an important seaport. As early as 1740 she was distinguished for her enterprise and commerce, and was particularly noted for her ship building and fisheries. Her population was then 17,000.

After this for more than half a century, viz: until 1790, her growth was checked by the Indian, French and English wars, and the restrictive policy of England. In 1790 her population was found to be but eighteen thousand and thirty-eight. Before the revolution she was the first commercial city on the coast. Her reputation was identified with the country; and the colonists were generally known as Bostonians among the French and Canadians. But during the revolution her citizens were compelled to abandon their fire-sides, their stores and churches were injured, or burnt by the British troops, and their commerce literally ruined. Her sacrifices, too, for the common cause were severe, and her recovery slow. New York and Philadelphia, consequently, outstripped her. But since 1790 Boston has made great advances. She embarked largely in the trade to India and China; in voyages to the North-west coast, in the fisheries, the carrying trade, and she opened an extensive business with Russia, China, the Indies, Mediterranean, South America, Liverpool and the British Provinces. When commerce was paralyzed by the embargo and war of 1812, she began manufactures. These have expanded into every variety of form. They have fostered a large trade both coastwise, and with the British Provinces. More recently she has taken a deep interest in railways, and opened to herself an interior to which nature gave her no access. To complete her railways she has used a large capital, and paid some extra interest. Their beneficent influence is, however, apparent, and the future promises accessions to her commerce.

EXPANSION OF BOSTON.

A Peninsula less than one square mile in extent was soon found insufficient for Boston; and the State annexed to her Dorchester Point, a Peninsula containing six hundred acres. To this she is wedded by four bridges. At a later period, ferries were established to Noddles Island, an area of six hundred acres, and this island now forms a ward of the city. Some hundred acres have also been reclaimed from the sea; but these narrow limits, less than two miles square, prove entirely inadequate, and have long been exceeded.

The population of Boston, outside of her chartered limits, already equals the population within. We should do injustice to Boston were we to confine her to such narrow bounds, or within such arbitrary lines. Her true limits, as a commercial metropolis, are those marked out by her business men for their stores, piers, shops and dwellings—the space occupied by those who resort daily to her banks and warehouses, or meet at her exchange. How is it with her sister cities? Philadelphia, by the last census, embraced within her chartered limits less than half her inhabitants; the residue were diffused through the extensive districts of Spring Garden, Moyamensing and Northern Liberties. She virtually extends, under different charters, from Richmond, six miles down the Delaware.

New York reaches fourteen miles from Kings Bridge to the Battery.

New Orleans embraces three distinct municipalities, on the Crescent of the Mississippi.

London, the queen of commerce, contains but six hundred acres, and less than one hundred and thirty thousand people in her chartered limits; but

her streets stretch eight miles on the Thames. Within her metropolitan districts are eighteen square miles of buildings, and three millions of people.

Boston, with less scope than New York, has, like New Orleans, Philadelphia and London, over-stept her sea-girt isles. She has attached herself to the main by one wide natural avenue, the neck, paved and planted with trees, by one granite structure, the Western Avenue, a mile and a half in length; by six bridges, seven railways, and three ferries, one terminating in a railway. Seven railways branch into sixteen, and ten avenues divide into thirty within the first nine miles from her exchange. These diverge like a fan, and on the streets thus made is found a large population under separate municipalities. As land rises in value, hotels, offices and blocks of stores usurp the place of dwellings. The old residents, leaving the low and reclaimed land to foreign laborers, plant themselves in the suburbs. There they build tasteful houses, with flower-plats and gardens; availing of the frequent omnibuses, or of special trains run almost hourly,* and commuting for passage at \$20 to \$40 a year; they reach their stores and offices in the morning, and at night sleep with their wives and children in the suburbs. No time is lost, for they read the morning and evening journals as they go and return. Some of the wards appropriate for stores thus rise in value, but diminish in population. The suburbs extend, and the commercial community grows in a widening semi-circle.

Dr. Lardner well remarks in his late treatise on railways: "The population of a great capital is condensed into a small compass, by the difficulty and inconvenience of passing over long distances; hence has arisen the densely populated state of great cities like London and Paris. If the speed by which persons can be transported from place to place be doubled, the same population can, without inconvenience, be spread over four times the area; if the speed be tripled, it may occupy nine times the area."

Boston, the first of our American cities to adopt improved modes of locomotion,—instance her early stages, her Middlesex Canal and Quincy Railway—is entitled to avail of these laws of science, and in computing her population and wealth should embrace the surrounding districts within nine miles, or half an hour's distance, equivalent to a two miles' walk, from her exchange.

The following table exhibits the population and wealth of the metropolitan district of Boston, by the census and valuation of 1850 and 1840, with the growth of each.

This district is sixteen miles in length, by nine and a half average width; about one fourth of it is occupied by water, marsh, or rocky hills too steep for building.

Name of district.	Distance from exchange.	Population by State census, 1840.	Population by U. States census, 1840.	Population by State census 1850.	Assessed valuation, 1840.	Assessed valuation, 1850.
Boston.....	.	83,979	93,383	†138,788	\$94,581,600	†\$179,525,000
Roxbury....	2	8,310	9,089	18,316	3,257,503	13,712,800
Charlestown..	2	10,872	11,484	15,933	4,033,176	8,862,250
Cambridge..	3	8,127	8,409	14,825	4,479,501	11,434,458
Brookline...	3	1,123	1,365	2,353	743,963	5,382,000
Chelsea.....	3	2,182	2,390	6,151	696,781	3,472,650
Dorchester..	4	4,458	4,875	7,578	1,691,245	7,199,750

* Two hundred and forty railway trains daily enter, or leave Boston, conveying more than 10,000 passengers daily.

† Population of Boston and environs in 1820, 86,696.

‡ The valuation of all these towns is official except Brighton, which is estimated from previous returns, the assessors not being ready to furnish the return for 1850.

Name of district.	Distance from exchange.	Population by State census, 1840.	Population by U. States census, 1840.	Population by State census, 1850.	Assessed valuation, 1840.	Assessed valuation, 1850.
Malden	4	3,027	3,351	5,017	586,136	1,461,436
Medford	4	2,275	2,478	3,581	1,095,195	2,128,470
Brighton....	5	1,405	1,425	2,253	458,485	1,146,212
Somerville...	5	new	new	3,110	new	2,778,125
W. Camb'dge	5	1,338	1,363	2,120	472,423	2,330,281
N. Chelsea...	5	new	new	819	new	772,000
Melrose.....	5	new	new	1,190	new	483,419
Watertown..	6	1,896	1,810	2,592	973,835	2,614,100
Winchester..	6	new	new	1,320	new	866,432
Stoneham....	6	1,007	1,017	2,043	217,960	539,000
Milton.....	7	1,684	1,822	2,222	663,247	1,200,800
Woburn.....	7	2,931	2,993	3,788	987,388	2,241,144
Quincy.....	8	3,309	3,486	4,958	912,105	2,200,000
Saugus.....	8	1,020	1,098	1,505	208,856	359,305
Dedham...	"	3,157	3,290	4,379	1,218,548	3,509,180
Newton...	9	3,027	3,351	5,017	897,255	3,793,083
Waltham...	9	2,593	2,504	4,483	1,069,171	2,973,750
Lexington...	9	1,559	1,642	1,920	561,549	1,469,551
Lynn.....	9	9,075	9,367	13,613	1,319,656	4,191,648
Total.....		158,546	171,992	269,874	\$120,114,574	\$266,646,844

By this table, founded on data from official sources, it appears that the assessed wealth of this metropolis amounts to \$266,646,844, a sum exceeding the assessed wealth of New York. It also appears that this wealth has increased in the last ten years, from \$120,114,574 to \$266,646,844, showing a ratio of one hundred and twenty-three per cent, or more than 12 per cent per annum.

It also appears that the population has increased from 158,546 to 269,874, by the State census taken in 1840 and in 1850. But the State census does not give the whole amount. It is prepared for a special purpose to district the State for representatives, and the usage of the State is to omit prisoners, paupers, lunatics, and also absent seamen.

The United States census, in 1840, gave an excess in this district of 13,446, or $8\frac{1}{2}$ per cent for these omissions, and assuming the same result for 1850, we must add—

To amount of State census	269,874
Eight and a half per cent.....	22,939

And we have a population of 292,813

This population and wealth must preserve for this metropolis her station among the three first cities of the Union.*

RAILWAYS AND STEAMERS.

The growth of Boston and her environs has been more rapid during the past ten years than in any previous decade. The South has ascribed her progress principally to cotton mills. In common with commerce, the fish-

* The public and corporate property in Boston and its environs, not included in the above assessments, exceeds twenty-one millions. In 1840 the assessed valuation of the city of New York was two hundred and fifty-two millions one hundred and thirty-five thousand dollars. In 1849 the assessed valuation of New York was \$256,217,093; in the same year, valuation of Brooklyn, Long-Island, was \$32,466,330. The valuation of Williamsburgh, Long Island, was \$3,678,563. The assessed valuation of Baltimore was \$78,252,588. The assessed value of real estate in Philadelphia (exclusive of the districts) was \$58,455,174, and the valuation of real and personal estate in Portland, Maine, was, in 1850, \$7,500,000.

eries and other manufactures, these have doubtless contributed to her increase ; but the cotton business grew more rapidly in the preceding ten years, and is now less important than the manufactures of leather.

The principal cause has undoubtedly been the construction of railways, and the establishment of a semi-monthly steam lines to Europe. These have given great facilities to her commerce, enlarged her market, attracted merchants, stimulated every branch of manufacture, created a demand for houses and stores, and advanced the value of real estate. September 30th 1839, there were but one hundred and sixty-seven miles of railway radiating from Boston. In August, 1850, Boston is wedded to one thousand miles of railway in Massachusetts, thirteen hundred and fifty in the five other States of New England, and six hundred and fifty more in New York. In all, three thousand miles finished, or on the eve of completion. In September 1839, her Railway horizon was bounded by Salem, Bradford, Nashua and Providence. It now encircles a web spreading over Massachusetts, and extends to the Kennebec, the St. Lawrence and the Lakes. This great system of railways has been principally planned and directed by her sagacity. In 1846 and 1847, its success led to some overaction, to a few mistakes and a consequent pressure in the money market. Boston invested largely in lines to the North, and in distant railways—the Michigan Central, Mad River, Reading and Wilmington ; and she also expended five millions in an aqueduct, and as much more on factory cities. But the aqueduct is in operation. The northern lines will reach the St. Lawrence in October. Her last investments promise to be remunerative, and will bring with them a strong current of trade from newly acquired territory. Railways have become the great interest of Boston, and her investment in them exceeds fifty millions of dollars.

STEAMERS.

The Cunard line of steamers was commenced July, 1841, and has run nine years with unexampled success. There are also lines of steamers to St. Johns, the Kennebec, and Penobscot, to Nahant, and Hingham, but in this department Boston has displayed less energy than in railways. It is true she has now feeders and aliment for new lines of steamers. The ocean too, invites her action. Being one day nearer to Europe than New York, she can by her Telegraph give one day's earlier intelligence to the country.

ANNUAL PRODUCTIONS OF MASSACHUSETTS.

By an official report made to the Legislature in 1845, it appeared that the annual products of Massachusetts were one hundred and fourteen millions of dollars. Of these eleven millions were the produce of agriculture and the forests, principally hay, fruit and vegetables ; twelve millions the proceeds of the fisheries, and ninety one-millions manufactures. The income from commerce, freight, and investments in State loans, railways and cost of new structure, were not included.

FISHERIES.

In 1849, 204,000 barrels of whale and sperm oil, three-fifths of the entire fishery of the Union, were brought into Massachusetts, also 231,856 barrels of mackerel. A large portion of these imports find their way to Boston.

For more than a century Boston has been the chief mart for the sale of dried fish, and a large proportion of the fishermen engaged in both the cod and mackerel fishery resort to Boston for outfits and sales.

MANUFACTURES OF MASSACHUSETTS.

The principal branches in 1845 were:—

Miscellaneous	\$19,357,000
Boots, shoes, and leather	18,635,000
Cotton goods (817,473 spindles).....	12,193,000
Woolen and worsted goods.....	10,366,000
Manufactures of wood, including ships and carriages..	11,596,000
Manufactures of metals, tools, &c.....	8,024,000
Oil, candles, and soap.....	4,931,000
Hats, caps, and bonnets.....	2,384,000
Paper.....	1,750,000
Cordage.....	906,000
Glass.....	758,000
Total.....	\$91,000,000

Of these products, twenty-one millions are manufactured within the city and suburbs, the residue are principally sent to Boston for sale or shipment. A portion go directly to New York, but as Boston is the market of a large part of New England, the receipts from other States may be estimated to supply the deficit. The raw materials, and supplies for operatives and foreign imports, the latter amounting this year to nearly thirty millions, also pass through this market, so that the annual home trade of Boston may be safely set at two hundred millions of dollars.

This estimate is sustained by the business of the Suffolk Bank of Boston, which redeems at par the bills of the country banks of New England. Its redemption has in a single week of July, 1850, reached four millions six hundred and forty-five thousand dollars. Allowing for some excess, this indicates a business of two hundred millions per annum.

From the tabular statement of manufactures, it appears the cotton manufacture is less than one-seventh of the manufactures of the State. It has made more show than other branches because conducted by associations in large villages, while others are more dispersed. The tariff of 1846, has somewhat checked its growth, and injuriously affected certain fabrics, such as printing cloths, calicoes and fine muslins. It has also borne hard on iron and hardware, liuseed oil, and some descriptions of woollens. But the articles thus affected do not constitute one-half of the manufactures of the State, and the residue are still progressive. The manufacture of leather, boots and shoes, is particularly prosperous, and is now rated at twenty-five millions.* Mouslin delain, carpets and shawls are made on a large scale, and woollens have increased to at least fourteen millions.

The capital embarked by Boston, however, in all manufactures is much less than her investments in railways. It is now computed not to exceed forty millions, planted principally out of the city. Her capital devoted to commerce, including her investment in banks and insurance companies, is at least fifty millions of dollars.

Her investments in State and city loans may be set at \$15,000,000; in New York mortgages (a favorite investment) \$4,000,000.

* Hides, skins and leather are now imported into Boston, in large quantities, from *England* and *France*, and nearly all parts of the world, to be manufactured into boots and shoes.

SHIPPING OF BOSTON.—TONNAGE.

Years.	Registered.	Enrolled.	Total.
1842.....	157,116	36,385	193,502
1843.....	165,482	37,116	202,599
1844.....	175,330	35,554	210,885
1845.....	187,812	37,290	228,103
1846.....	192,879	42,185	235,064
1847.....	210,775	44,038	254,812
1848.....	232,769	45,100	277,869
1849.....	247,336	45,123	292,459
1850.....	270,710	42,482	313,192
1821.....	.....	.....	only 127,124

FOREIGN COMMERCE.

Within the last ten years the foreign commerce of Boston has gradually increased, although it has not kept pace with the coasting trade, which has of late been swelled by the accession of Texas and California.

Subjoined is a table giving the foreign arrivals, the exports, imports, and duties for a series of years:—

Years.	For. arrivals.	Imports.	Exports.	Duties.
1842.....	1,738	\$12,633,713	\$7,226,104	\$2,780,186
1843.....	1,716	20,662,567	7,265,712	3,491,019
1844.....	2,174	22,141,788	8,294,726	5,934,945
1845.....	2,305	21,591,877	9,370,851	5,249,634
1846.....	2,090	21,284,800	8,245,524	4,872,570
1847.....	2,739	28,279,651	12,118,587	5,448,362
1848.....	3,009	23,388,475	10,001,819	4,908,872
1849.....	3,111	24,117,175	8,843,974	5,031,995
1850, for 1st half only.....	....	16,329,501	4,426,216	3,126,472
1821, only.....	853	.....	.....	.....

In foreign arrivals, imports and duties, Boston stands next to New York. Her excess of imports over her exports is paid for by the earnings of her vessels on foreign voyages, and by her coastwise shipments of granite, marble, ice, manufactures and other merchandise to the exporting cities of the South.

LOCAL AND COASTWISE TRADE.

Boston enjoys a large local and coastwise trade. The population of Massachusetts has risen from 718,592, by the State, and 737,700, by the United States Census in 1840, to 973,715, by the State Census of 1850. This gives one hundred and thirty-nine inhabitants to the square mile. For her area is but seven thousand square miles.

Within her borders are two cities with over 30,000 people each; ten with 10,000 to 20,000; ten towns with 6,000 to 10,000; twenty with 4,000 to 6,000.* Between these and the metropolis an active commerce exists. The whole State draws but \$10,000,000 of produce from agriculture, half of which is hay, and of course depends on other States for food and raw material. Boston is the principal mart, and by her iron arms she reaches, through a populous interior, to the lakes and borders of the St. Lawrence.

The following table exhibits the principal coastwise importations of Boston for several years.

* The country around Boston and its suburbs is very populous. A strip of land only six miles wide surrounding the metropolitan districts contains over 70,000 people.

COASTWISE IMPORTATIONS OF CERTAIN ARTICLES INTO BOSTON.

	1849.	1840.	1821.
Cotton.....bales	269,813	138,709	17,126
Anthracite coal.....tons	262,632	73,847	.....
Flour.....bbls.	*987,988	550,359	259,030
Corn.....bush.	3,002,593	1,834,861	641,680
Oats, rye, and shorts.....	621,513	577,359	160,871
Turpentine.....bbls.	38,199	20,740	8,392
Leather.....sides	663,530	.....	.....
Pork.....bbls.	156,556	.....	.....
Lead.....pigs	200,560	.....	.....

Large importations are also made, particularly from New Orleans, of beef, hemp, sugar, molasses, tobacco, and many other articles.

COASTERS.

Vessels of all sizes from 50 to 1,000 tons, are engaged in the coasting trade. The following table exhibits for a term of years the arrival of all vessels coastwise, excepting sloops and schooners transporting wood, sand, and stone, which amount to some thousands annually, and do not report to the custom-house.

COASTWISE ARRIVALS.

1842.....	4,024	1847.....	7,004
1843.....	4,944	1848.....	6,002
1844.....	5,312	1849.....	†6,100
1845.....	5,631	1850, 1st half only.....	3,462
1846.....	6,732	1821, only.....	2,013

FREIGHT BY RAILWAYS.

Freight earnings of the four railways terminating in Boston in 1839....	\$287,310
“ “ seven “ “ “ 1849....	1,238,122
Tons transported by same in 1849.....	1,167,129

CATTLE TRADE.

Large sales of live stock are made weekly at Brighton near Boston, brought principally from other States by railway. Many horses are also brought by the same conveyance. Cattle are killed in the environs.

SALES AT BRIGHTON FOR 1849.

Beef cattle.....	46,465	Amount of sales.....	\$1,765,670
Store cattle.....	20,085	“ “.....	482,040
Sheep.....	148,965	“ “.....	297,910
Swine.....	80,120	“ “.....	430,645
Total value.....			\$2,976,265

Another large market for cattle and other live stock is now held weekly at Cambridge.† Large quantities of pork in bulk are in the winter conveyed by railway to Boston from the interior of New York. In the year ending September 1, 1850, 37,778 whole hogs were thus transported. The Fitchburg Railway brings in annually about 100,000 tons of ice. The Old Colony Railway, in addition, transports the city offal to Quincy.

* In the year ending September 1, 1850, the whole exportation of flour from the United States to Great Britain was 392,742 barrels; of corn, 4,813,373 bushels.

† In 1727 the arrivals in London were foreign, 2,052; coastwise, 6,837.

‡ The live stock offered for sale for the past year at the new market at Cambridge has been as follows:—56,144 cattle, 168,224 sheep, 7,678 swine, and 1,245 horses.

TRADE WITH THE SOUTH AND WEST.

Vast quantities of imported and manufactured goods are sold annually by Boston to the South and West, which are sent off both by railways and packets. Lines of packets run to all the great cities of the sea-coast. To illustrate the magnitude of this business;—a single packet, the *President*, which sailed from Boston during the current month of August for New Orleans, took 15,651 packages, principally boots, shoes, and other domestic goods, consigned to 332 different consignees, and valued at \$390,000.

CALIFORNIA TRADE.

Boston has devoted a large amount of shipping to the California trade, and has sent some thousand colonists to the Golden Gates. The vessels selected are principally of the oldest class, least adapted to the European or India trade, and the amount realized from their outward freight, averaging thirty dollars per ton, approaches their actual value.

From January, 1849, to August, 1850, nearly 1,300 vessels have sailed from our Atlantic ports for California. Of these nearly one-fourth have cleared from the port of Boston. The parties who have shipped by them have met with varying success. For instance, on the early shipments of lumber a profit of 1,000 per cent was realized; on the late shipments, expenses have frequently absorbed the whole. It often happens, however, that one paying article makes up for the loss on many others. Many vessels have found good employment at San Francisco.

BANKING CAPITAL.

Capital of banks in Boston proper.....	\$19,280,000
In metropolitan districts.....	1,450,000
Estimated increase since January	1,000,000
Total.....	\$21,730,000

Average dividends for 1849 and 1850 over 7 per cent.

SAVINGS BANKS.

	Am't deposited.
Provident Institution for Savings, Boston.....	\$3,200,382
Suffolk Savings Bank, Boston.....	771,809
East Boston Savings Bank	5,608
Aggregate in city proper, 1849.....	\$3,977,799
In other metropolitan districts.....	961,530
Aggregate deposited by 29,799 depositors.....	\$4,939,329

Whole amount deposited in Massachusetts' savings banks, in 1849, \$12,111,553 64. The average dividends of savings banks in Boston have been for five years 8 per cent.

CAPITAL OF INSURANCE COMPANIES.

Stock Capital of Boston Companies, \$5,483,000. There are also in the city and environs sixteen mutual companies and several foreign agencies.

AQUEDUCT.

As Boston grew in population and manufactures, the natural springs which gave it the Indian name of Shawmut gradually failed, and the water deteriorated. The citizens were obliged to deepen the ancient wells from year to year, and the wells on land reclaimed from the sea proved brackish

and unwholesome. It was at length necessary to resort to a foreign supply. In 1795 wooden pipes were laid by a private company from Jamaica Pond, a beautiful sheet of water five miles from the exchange, and as the demand increased, a ten inch pipe of iron was substituted. Three thousand tenants were thus furnished with a partial supply, and the enterprise was found very remunerative. Jamaica Pond having proved insufficient, Boston, in 1846, selected Cochituate Lake, in Framingham, twenty miles from the exchange, and constructed a new aqueduct to supply the city. This was commenced in August, 1846, and opened for use in October, 1848.

The mean elevation of the lake is 128 feet above the marsh level. The water is carried $14\frac{5}{8}$ miles by a brick conduit of an elliptic form, measuring six feet four inches, by five feet, with a regular descent of $3\frac{1}{4}$ inches to the mile, to a large reservoir in Brookline. Here a pond of 22 acres, holding 100,000,000 of gallons, has been formed by closing the outlet of a valley. This reservoir is 123 feet above the level of the sea. The conduit on its way passes through two tunnels, one of which is half a mile in length, driven through solid rock. A break occurs at Charles River, which the water crosses by two parallel pipes of thirty inches diameter. From the Brookline Reservoir it is carried in large iron pipes five miles to a granite reservoir in the city on the summit of Beacon Hill, holding 2,500,000 gallons. Also to another large reservoir on Dorchester Heights, South Boston, holding 6,000,000 of gallons. These are elevated 120 feet above the sea. From these the water is distributed by 70 miles of pipes through all the streets of Boston proper, and has generally been introduced into the dwellings and stores at the expense of the city. The head is sufficient to throw a three inch jet 92 feet high from the fountain on the Common, and to carry the water to the chambers of all the inhabitants. The aqueduct is competent to deliver 14,000,000 of gallons daily, and the source supplies 10,000,000, and this quantity may be increased to 14,000,000 by other feeders within two miles distance. The authorities are now engaged in conducting a pipe by bridges across the Charles and Mystic Rivers, four miles further to East Boston, passing under several deep and navigable channels by syphons. The cost of this enterprise will amount to \$5,000,000, which has been principally borrowed on short loans, and funded in 5 per cent stock, issued at par, or at a small discount.

The amount of water rents the present year, from January to July, have been \$90,000. A large part of the inhabitants are supplied at five dollars per tenement; hotels, railways, and manufacturing establishments at higher rates. The income promises to be progressive.

The city proper now is, and the suburbs soon will be, lighted with gas.

PUBLIC EDIFICES.

The principal public buildings in Boston and its vicinity are the Quincy Market, a granite structure 500 feet by 38. The State House, a large and commodious edifice, erected nearly fifty years since by the State. It occupies an elevated position overlooking the Common, and is embellished by two iron fountains. Faneuil Hall, an ancient brick edifice, the basement of which rents for \$7,000. The Massachusetts General Hospital, a large stone structure at West Boston; the old State House; the Massachusetts Eye and Ear Infirmary; the Institute for the Blind at South Boston; the Orphan Asylum; the Farm School; the City Hall, and Suffolk Court House, large buildings of granite; the Registry of Deeds; the Merchants'

Exchange, of granite also; the Athenæum, a large and beautiful building of free-stone, costing \$185,000; an elegant granite Custom-house; a Club-house of free-stone, in the Italian style, costing \$45,000; twenty-three large school-houses, that have cost \$703,000; forty-one primary school-houses, costing \$246,000; three theatres; a museum, and two large buildings of granite, used for concerts and lectures. Boston is also erecting an extensive jail of Quincy granite, estimated to cost \$480,000, and a spacious Alms-house, to accomodate 1,500 paupers and emigrants, at Deer Island, to cost \$150,000. At Rainsford's Island she has also a Quarantine Hospital, and buildings hitherto used for jails and alms-houses at West and South Boston.

In the environs are two large and elegant Court-houses at Dedham and Cambridge; a Town-hall at Quincy, of granite; a Collegiate building at Newton, and ten College halls, an Observatory, and an Insane Hospital at Cambridge.

DONATIONS TO PUBLIC INSTITUTIONS, AND FOR CHARITABLE PURPOSES.

The citizens of Boston have rarely been wanting in the cause of beneficence, and many of their institutions are richly endowed. Previous to 1845, a single institution, the Massachusetts General Hospital and McLean Asylum, had received \$640,942, and the entire amount of donations to such public objects was ascertained by the Hon. S. A. Eliot, late mayor of the city, to have been, prior to 1846, \$4,992,659.

PUBLIC CEMETERIES.

Very few interments are now made in the ancient burial grounds of Boston. Several of them have been planted with trees and shrubs, and contribute to the ornament of the city. In 1831 an association of gentlemen purchased Mount Auburn, in Cambridge, a spot remarkable for its natural beauties, and devoted 118 acres to a rural cemetery. "This is probably the first instance in America of a large tract having been chosen for its natural beauties, and improved by landscape gardening to prepare it for the reception of the dead." It has been extensively copied in other parts of the Union. During the past eighteen years, 1,756 lots have been sold, realizing not far from \$175,000. Roads and paths have been opened, a granite gateway and chapel have been built, and more than half a mile of iron paling constructed. Many tasteful monuments of marble have been erected, and it has become a place of frequent resort both for the living and the dead. At Forest Hill, Roxbury, is another beautiful cemetery. Others are in progress at Brighton and at Woodlawn, a very picturesque spot in Malden.

CITY DEBT AND RESOURCES.

The city debt had been reduced by a cautious policy from \$1,698,232 56, in 1840, to \$1,058,016 66, in 1846. Since that period the aqueduct and other public improvements have carried the amount to \$7,000,000. A strong desire now pervades the community to prevent its future growth. The debt, however, is not large when compared with the income, wealth, and resources of the city, and may be eventually met by the income and sales of the city property. The aqueduct is already productive, and may be made to supply the environs as well as the city proper.

Boston possesses also, the Common, a beautiful park of forty-eight acres, encircled by an iron fence; the Public Garden, containing fourteen acres, and several public squares and areas embellished by fountains. These are all devoted to health and recreation. She owns also a large amount of

valuable property which may be sold: this includes most of the vacant land in Boston proper, viz: 4,500,000 feet of land and flats at South Boston; 5,000,000 feet of land and flats on the Neck, and east of the Harrison Avenue, together, worth \$3,400,000; the City Wharf, valued at \$600,000; Quincy Market, \$500,000; Leverett-street Estate, 47,000 feet, \$100,000; Old State House, \$100,000; Bonds and Mortgages, \$271,000; other real estate, exclusive of aqueduct and public buildings, \$100,000; making a total of \$5,071,000. The use and sale of part of this property, and the income of the residue, will provide eventually for the debt. The revenue the city proper now derives from rents, interest, water, and other sources besides taxes, exceeds \$300,000 yearly, being nearly equal to the interest of the debt.*

CITY TAXES.

The amount assessed for taxes has been as follows:—

Years.	Amount of tax assessed.	Rate on \$1,000.	Property assessed.
1840.....	\$546,742	\$5 50	\$94,581,600
1841.....	616,412	6 00	98,006,600
1842.....	637,779	5 70	105,723,700
1843.....	712,379	6 20	110,056,000
1844.....	744,210	6 00	118,450,300
1845.....	811,338	5 70	135,948,700
1846.....	931,998	6 90	148,839,600
1847.....	1,014,674	6 00	162,360,400
1848.....	1,131,821	6 50	167,728,000
1849.....	1,174,715	6 50	174,180,200
1850.....	.....	....	179,525,000

The large sums thus realized have been expended for great public objects—such as the school system, improvement of streets, an efficient police and fire department, the public health, and relief of the distressed. In the year ending April 30th, 1848, for instance, the chief municipal expenditures were:—

For schools and school-houses	\$348,887 40
Streets—widening, lighting, and paving	400,728 16
Watch department.	60,076 65
County expenses—courts, &c.	44,584 01
Fire department.	81,935 17
Alien passengers.	17,336 96
House of Correction	34,194 78
House of Industry	55,558 30
Health and quarantine department.	59,113 76
Police and ward meetings	29,292 68
Salaries	25,599 66

CANALS.

In noticing the public works to which Boston has contributed one has been omitted, the Middlesex Canal, from the bend of the Merrimack River, near Lowell, to Boston, a distance of thirty miles. This enterprise was commenced soon after the Revolution, to turn the trade of the Merrimack from Newburyport, its natural outlet, to Boston. It required more than twenty years to raise the requisite funds, \$600,000, and complete it, but it effectually turned the masts, spars, and ship timber of New Hampshire to Boston. It became profitable after Lowell was founded, but is now almost superseded by the Boston and Lowell Railway. This canal was one of the earliest steps in the cause of public improvements in the United States. 16

* See Auditor's Report on Ways and Means for 1848, and Report on Water and Water Rents.

VIADUCTS, BRIDGES, AND WHARVES.

Some of the artificial structures which connect Boston with the main deserve notice. The Western avenue, 7,000 feet long, leads from the old Peninsula to Brookline, Roxbury, and Brighton. It is a solid structure of granite, filled in with earth, costing \$700,000. Beside forming a wide carriage road it creates a large water power, and has redeemed many acres from the harbor. West Boston Bridge and Causeway, 6,190 feet long, costing \$76,667, connects Boston with Cambridge. Canal Bridge is 2,796 feet long: Warren Bridge, 1,390 feet; Long Wharf, 1,800 feet long and 200 wide; Central Wharf, 1,379 feet long and 150 wide; India Wharf, 980 long. Along these wharves are continuous blocks of brick warehouses, four to five stories high, and fifty to eighty feet deep. Granite, Commercial, and Lewis's Wharves are of similar size, but have ranges of large stone warehouses.

BUILDING MATERIALS.

The quantity of lumber inspected in Boston in 1849 was:—

Pine, spruce, and hemlock.....	feet	67,241,681
Southern pine.....		2,843,512
Hard wood.....		2,982,713
Pine timber.....	tons	4,725
Hard wood timber.....		3,460
Mahogany.....	feet	1,088,110
Cedar.....		406,650

Aggregate landed in Boston proper.....	78,683,538
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The quantity sent by railway into the country without inspection is considered equal to that inspected twice. The Inspector General estimates the quantity of lumber landed in the metropolitan district around Boston quite equal to that landed in the city proper. From 50,000 to 100,000 tons of granite are annually quarried at Quincy. This gives employment to a large amount of shipping.

MODERN WAREHOUSES.

With increased trade and manufactures a demand has arisen in Boston for enlarged warehouses, and many have lately been erected of massive granite, in long blocks, and 60 to 100 feet deep. The name of the estate is frequently inscribed on these in block letters of granite below the cornice.

LITERARY INSTITUTIONS.

The schools of Boston have been adverted to already. Their number and excellence have, with her liberal patronage of literature, given to Boston the title of Literary Emporium, and their merit and importance cannot be over-rated. August 1, 1845, she had 125 primary schools with 7,892 scholars, and 19 grammar schools with 8,115 scholars. In 1850 she has 178 primary schools with 11,376 scholars, and 22 large grammar schools with 9,154 scholars, and other schools with 471. The teachers of the primary schools receive \$300, and the masters of the grammar schools \$1,500 per annum. Boston also has a Latin and High School, in which the higher branches are taught with signal ability. They are surpassed by no private schools in New England. All these schools are open to all classes free of charge. Without the chartered limits are Harvard University with its Law and Theological schools, a Baptist College, and many excellent schools and academies.*

LIBRARIES.

There are several public libraries in the city and environs. The Athenæum Library, the Boston and Mercantile Libraries, the Law Library, the State, and the several libraries of Harvard University, contain together, more than 150,000 volumes.

NEWSPAPERS.

There are eighty newspapers established in Boston proper, several of which are worked by steam presses, and have a wide circulation. The price varies from one cent per number to eight dollars per annum. There are also six published in the suburbs.

RELIGIOUS AND CHARITABLE INSTITUTIONS.

Boston and her suburbs contain over two hundred churches and places of worship. They have also a General Hospital, two Insane Hospitals, an Asylum for the Blind, an Eye and Ear Infirmary, a Lying-in Hospital, an Asylum for Orphan girls, and a Farm School for boys. Most of these are liberally endowed.

UNITED STATES PROPERTY.

The United States have expended large sums in and around Boston, on their fortresses and arsenal, extensive navy yard, dry dock, and rope walks, and stores of cannon, arms, and materials, a custom-house, and hospitals for sick and infirm seamen. All these are situated on Boston harbor, and the present value of the investment is at least \$8,000,000. The navy yard is second only to that of Norfolk.

GROWTH OF BOSTON.

Should the growth of Boston and her suburbs continue for twenty-five years in its present ratio, her population will exceed 1,000,000, and her assessed property rise to \$1,500,000,000. She is entering upon the future with encouraging prospects and enlarged resources, and has surmounted the principal obstacles to her progress.

CONCLUSION.

If we would seek for a solution of the growth of Boston in commerce, wealth, and population, we may trace it not only to her central position and admirable harbor, but to the enterprise, intelligence, and frugality of her people. Her enterprise descends lineally from those bold ancestors who planted an empire in the wilderness. She has inherited alike their spirit and their love for letters. These have guided her enterprise. But it is one thing to acquire and another to retain. The frugality which characterizes the old Bay State is the great secret of accumulation. Here every artisan aspires to own his house, and to leave a patrimony to his children. Having secured his dwelling, he buys a single share in a bank, railway, or factory, and gradually becomes a capitalist. And large are the acquisitions of adventurous, frugal, and well-directed industry. Floods, tempests and fire, embargoes, and repeals of tariffs, may sweep over and injure, but cannot destroy it. In its strong and enduring vitality, like the shell-fish, it clings to, and thrives upon, its barren rock.

E. H. D.

* In 1850 Roxbury alone has at her public schools 2,743 scholars.

